

CHAPTER 427.

RULES FOR LOCAL EXCHANGE TELECOMMUNICATIONS COMPANY
SERVICE QUALITY STANDARDS.

20 VAC 5-427-10. Applicability; definitions.

A. The provisions of this chapter shall apply to local exchange telecommunications carriers (LECs) certificated to provide local exchange telecommunications services within the Commonwealth of Virginia.

B. The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

"Automated answering system" means a system where customer calls are received and directed to a live agent or an automated transaction system.

"Automated transaction system" means a system where customer transactions can be completed without the assistance of a live agent.

"Bridged tap" means a multiple appearance of the same cable pair at several distribution points or a section of a cable pair not on the direct electrical path between the central office and the customer's premises.

"Business office" means any functional entity that accepts service orders, billing inquiries, and processes other related customer requests.

"Busy hour" means the sliding 60-minute period during which the maximum total traffic load in a given 24-hour period occurs.

"Central office" means a LEC operated switching system, including remote switches and associated transmission equipment (e.g., digital circuit switches, packet switches, carrier systems).

"Central office serving area" means the geographic area in which local service is provided by a LEC's central office and associated outside plant.

"Commission" means the Virginia State Corporation Commission.

"Competitive local exchange carrier (CLEC)" means an entity, other than a locality, certificated to provide local exchange telecommunications services in Virginia after January 1, 1996, pursuant to § 56-265.4:4 of the Code of Virginia and 20 VAC 5-417-10 et seq.

"Customer" means any person, firm, partnership, corporation, municipality, cooperative, organization, or governmental agency that is an end user of local exchange telecommunications services that are under the jurisdiction of the commission.

"Emergency" means a sudden or unexpected occurrence involving a clear and imminent danger demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services.

"In service trouble report" means a customer-reported network trouble that allows calls to be originated or received but affects other aspects of service such as static or hazardous conditions.

"Incumbent local exchange carrier" or "incumbent" or "ILEC" means a public service company providing local exchange telecommunications services in Virginia on December 31, 1995, pursuant to a certificate of public convenience and necessity, or the successors to any such company.

"Intercept" means a suitable announcement that provides sufficient information as to the reasons for the call diversion.

"Load coil" means an induction device employed in local loops exceeding 18,000 feet to minimize amplitude distortion.

"Local exchange carrier (LEC)" means a certificated provider of local exchange telecommunications services, whether an incumbent or a new entrant.

"Local exchange telecommunications services" means local exchange telephone service as defined by § 56-1 of the Code of Virginia.

"Locality" means a city, town, or county that operates an electric distribution system in Virginia.

"Major service outage" means any network condition that causes 1,000 or more customers to be out of service for 30 or more minutes; causes an unplanned outage of, or completely isolates, a central office for 30 or more minutes; or disrupts 911 emergency call processing for any period.

"Municipal local exchange carrier (MLEC)" means a locality certificated to provide local exchange telecommunications services pursuant to § 56-265.4:4 of the Code of Virginia.

"Network" means a system of central offices and associated outside plant.

"Network access line (NAL)" means a customer dial tone line, or its equivalent, that provides access to the public telecommunications network.

"New entrant" means a CLEC or an MLEC.

"Out of service" means a network service condition causing an inability to complete an incoming or outgoing call or any other condition that causes a connected call to be incomprehensible.

"Outside plant" means the network facilities not included in the definition of central office including, but not limited to, copper cable, fiber optic cable, coaxial cable, terminals, pedestals, load coils, or any other equipment normally associated with inter-office, feeder, and distribution facilities up to and including the rate demarcation point.

"Rate demarcation point" means the point at which a LEC's network ends and a customer's wiring or facilities begin.

"Repeat report" means a customer-reported network trouble that is received by a LEC within 30 days of another network trouble report on the same NAL.

"Speed of answer interval (SAI)" means the period of time following the completion of direct dialing, or upon completion of a customer's final selection or response within an automated answering system, and lasting until the call is answered by a live agent or is abandoned by the customer or the LEC. In the case of automated transactions where a customer opts to speak to a live agent, the SAI is the period of time following the customer opting to speak to a live agent until the call is answered by a live agent or is abandoned by the customer or the LEC.

"Staff" means the commission's Division of Communications and associated personnel.

"Standard load" means transmission loss has been reduced on a cable pair by means of configuring the twisted copper pair loop using a 6,000 foot H spacing loading scheme or 4,500 foot D spacing loading scheme, which may be expressed as 6,000 foot H88 mh load or 4,500 foot d66 mh load scheme.

"Telecommunications relay service" means a telephone transmission service that provides the ability for an individual with a hearing or speech disability to engage in communication with a hearing individual in a manner functionally equivalent to someone without such a disability.

"Transmission" means a process of transmitting voice grade telecommunications from one network point to another.

"Trouble" means an impairment of a LEC's network.

"Trouble report" means an initial oral or written notice, including voice mail and e-mail, to any LEC employee or agent of a condition that affects or may affect network service.

"Trunk blockage" means the unavailability of network transmission capacity at the time of a call that prevents call completion and results in the call originator receiving a fast busy signal or an indication of trunk blockage.

"Virginia universal service plan (VUSP)" means the program under which eligible lower-income customers may obtain certain telecommunications services at reduced monthly charges and may also receive a discount on certain nonrecurring connection or service charges from participating LECs. This program is also referred to as lifeline or link up.

"Voice grade service" means the transmission of communication signals in the range of 0 to 4000 Hertz.

20 VAC 5-427-20. General provisions.

A. The provisions of this chapter prescribe the minimum acceptable level of quality of service under normal operating conditions.

B. The commission may, after investigation, suspend application of any provision of this chapter during periods of emergency, catastrophe, natural disaster, severe storm, or other events affecting large numbers of customers. The commission may also suspend application of the provisions of this chapter for other extraordinary or abnormal conditions, including work stoppage, civil unrest, major transportation disruptions, or other events beyond the control of a LEC.

20 VAC 5-427-30. Network facilities, construction, operation, maintenance, and repair.

A. Network facilities shall be designed, constructed, operated, maintained, and repaired in compliance with applicable safety and electrical codes, regulations, and statutes; applicable commission orders and rules; and all requirements for interconnection under applicable federal and state law.

B. Outside plant shall be designed, constructed, operated, maintained, and repaired so as to minimize transmission interference from services provided by other public utilities.

C. A LEC shall participate in operational reviews held at the staff's discretion to ensure that construction, design, maintenance, disaster recovery plans, and any other applicable programs are adequate to meet the needs of a LEC's customers.

D. A LEC shall have the test equipment and technical ability to determine the operating and transmission characteristics of its own network facilities.

E. A LEC, whenever it disturbs private property during the course of construction or maintenance operations, shall, except when otherwise specified or governed by easement or agreement, make every reasonable effort to restore the private property to a condition that is at least as good as that which existed prior to the disturbance.

20 VAC 5-427-40. Availability and retention of records.

A. A LEC shall make available to the commission or staff, upon request, all records, reports, and other information required to determine compliance with this chapter.

B. A LEC shall retain records relevant to 20 VAC 5-427-130, where applicable, for a minimum of two years.

C. A LEC shall retain customer billing records for a minimum of three years to permit the commission or staff to investigate and resolve billing complaints.

20 VAC 5-427-50. Maintenance of facility maps and records.

A LEC or its affiliates shall maintain maps and records that show the current location, description, and capacity fill data of its network.

20 VAC 5-427-60. Rate and special charges information.

A. Upon the request of a current or prospective customer, a LEC shall disclose all rates, charges, and fees applicable to a customer's service request or inquiry including, but not limited to, the federal subscriber line charge or its equivalent, or any other rates, charges, and fees that it collects and retains. In addition, the rates, charges, and fees that the LEC collects and retains shall each be clearly, conspicuously, and in every instance, disclosed as line items on customer bills separately from governmental fees, taxes, and surcharges.

B. Upon the request of a current or prospective customer, a LEC shall describe and disclose the fees, taxes, and surcharges that it collects from a customer and distributes to governmental agencies.

C. Upon the request of a current or prospective customer, a LEC shall, with specificity, provide a customer with an Internet web site address or web site link containing its current effective Virginia intrastate tariffs or, at the customer's request, provide a copy of the applicable tariff section or pages for the Virginia intrastate regulated telecommunications service.

D. Upon the request of a current or prospective customer, a LEC shall provide reasonable access to information and provide assistance necessary to enable the current or

prospective customer to obtain the most economical service available to meet the customer's needs, including VUSP or any other discount programs that may be available.

E. Before changing or installing a service, a LEC shall provide to the current or prospective customer an estimate of any special charges not specifically set forth in the LEC's applicable tariff. Special charges include, but are not limited to, any of the following: extraordinary construction, maintenance, and replacement costs; expenses for overtime work to be performed at the customer's request; or special installations, equipment, or assemblies needed to fulfill a customer's request.

20 VAC 5-427-70. Response to trouble reports.

A. A LEC shall process trouble reports from customers at all times through automated or live means and shall take immediate action to clear trouble reports of an emergency nature.

B. A LEC shall make a full and prompt investigation of all trouble reports.

C. A LEC shall render reasonable customer assistance to identify the cause or causes of an outage that may be corrected by the customer.

D. A LEC shall maintain an accurate record of trouble reports by telephone number or circuit number, as appropriate. The record shall include all of the following information:

1. The customer or service affected;
2. The time, date, and nature of the trouble report;
3. The action taken to clear the trouble or satisfy the complaint; and
4. The date and time the repair was completed or the trouble report was otherwise closed.

20 VAC 5-427-80. Service outage reporting requirements.

A. The staff shall be advised of a major service outage on the same business day or, if the outage occurs outside of the commission's normal business hours, at the beginning of the next business day;

B. A major service outage report shall be submitted to the staff by the end of the next business day following the outage and shall include the following information:

1. The central office, remote switch, or other network facility involved;
2. The date and estimated time of commencement of the outage;
3. The geographic area affected;
4. The estimated number of customers affected;
5. The types of services affected;
6. The duration of the outage (e.g., time elapsed from the commencement of the outage until estimated restoration of full service); and
7. The apparent or known cause or causes of the outage, including the name and type of equipment involved and the specific part of the network affected, and methods used to restore service.

20 VAC 5-427-90. Emergency operation.

A. A LEC shall make reasonable preparations to continue operations and restore service outages resulting from fire, major electric power failures, other emergencies, and acts of divine providence.

B. A LEC's employees or agents shall be instructed to follow emergency procedures to prevent or minimize interruption or degradation of service.

C. A LEC's central offices shall have access to adequate facilities to provide emergency electric power, and the LEC shall determine the necessary reserve power capacity requirement based on its operating experience with its energy provider.

D. A LEC shall, if a central office does not have power generation equipment installed, design and maintain sufficient battery reserve, within the appropriate ampere hour rating, to allow timely delivery and setup of portable generators.

20 VAC 5-427-100. Customer complaint handling.

A LEC shall establish customer complaint processing procedures in compliance with § 56-247.1 C of the Code of Virginia by:

1. Providing the staff a means for immediate direct telephone access to company complaint resolution personnel during normal business hours;

2. Providing the staff an escalation list of at least three company contacts responsible for resolving customer complaints received by the commission or staff. This list shall include the names, titles, addresses, telephone numbers, fax numbers, and e-mail addresses of each individual contact. Any changes to the escalation list shall be provided to the staff within 30 days of the change;

3. Making a full and prompt investigation of all customer complaints;

4. Assisting customers who report obscene, threatening, or harassing calls;

5. Providing customers who call from within their local serving area toll-free access to report complaints;

6. Making its customer complaint procedure and its record of the number and type of complaints available to the staff whenever requested;

7. Noting and retaining customer contact records when an inquiry or complaint is resolved. Customer contact records shall be retained for a minimum of two years; and

8. Conducting an investigation upon notification by the staff regarding a customer inquiry or complaint. Out-of-service complaints shall be given immediate attention with a written response provided to the staff within one business day of notification by the staff. For other complaints, the LEC shall provide a written response to the staff detailing its resolution of the complaint within 10 business days following the initial notification by the staff. Upon extraordinary circumstances when the matter cannot be resolved within a 10 business-day period, the LEC shall provide written updates on a schedule established by the staff until the matter is finally resolved.

20 VAC 5-427-110. Intercept.

When a customer's telephone number is changed or disconnected, the LEC shall offer to intercept all calls to the former telephone number in accordance with the following:

1. Intercept service shall be provided for changed telephone numbers until the former telephone number is reassigned due to equipment or telephone numbering resource shortages or until it is no longer listed in the current printed directory; and

2. Intercept service shall be updated daily to reflect the most current service order activity affecting a LEC's customers.

20 VAC 5-427-120. Printed directories.

A. A LEC responsible for publishing a directory shall make every reasonable effort to correct directory errors and to resolve directory disputes in a timely and efficient manner. A LEC responsible for directory publication may be required by the commission to postpone publication depending upon the nature and severity of a complaint. A LEC responsible for publishing a directory includes, but is not limited to, a LEC that publishes directories, causes directories to be published, or provides customer information for inclusion in directories.

B. A LEC shall publish directories or cause its customers' listing information to be published in directories at yearly intervals. Exceptions to the yearly publication schedule shall be reviewed with the staff.

C. A LEC shall distribute, or cause to be distributed at no charge to each customer, at least one directory for each residential premises and at least one directory for each business NAL that includes listings contained in a customer's local and extended calling areas. Where a residential customer has more than one NAL, a LEC shall, upon request of that customer, provide, at no charge, additional directories not to exceed the total number of NALs. In cases where one directory does not include the listings contained in a customer's local and extended calling areas, then a LEC shall provide, upon request of that customer, at no charge, any additional directories or supplements that may be required to provide such listings.

D. A LEC shall provide the staff one copy of each directory it publishes or causes to be published.

E. If an error occurs in the listed telephone number of a customer, then the LEC shall, at no charge, offer to intercept or remote call forward calls, at the option of the LEC, for the remaining life of the directory or change the customer's telephone number to the listed

telephone number provided that it is technically feasible and that the telephone number is not in service for another customer.

F. If an error or omission in the name, address, or telephone number of a customer occurs, a LEC shall, if applicable, include, or cause to be included, the customer's correct name, address, or telephone number in the files of the directory assistance database.

G. If additions or changes to the network or any other operations require changing a telephone number assigned to a customer, then the serving LEC shall give reasonable notice to the customer affected even though the change in telephone number may coincide with the issuance of a directory.

H. A directory shall, in the opening information pages, include:

1. Information pertaining to accessing emergency services such as fire and police;
2. Information giving the commission's address, telephone number, website information, and regulatory authority;
3. An explanation of the services for which local exchange telecommunications services may be terminated for failure to pay;
4. Information pertaining to accessing the Telecommunications Relay Service. This service is also referred to as Virginia Relay;
5. Information describing illegal telephone use;
6. Information describing procedures for the prevention of damage to underground facilities;
7. Information describing procedures on handling harassing, obscene, abusive, or threatening calls;

8. Information pertaining to consumer rights to privacy including procedures on how to opt out or block services that may lead to the disclosure of personal information; and

9. Information pertaining to procedures on how to prevent solicitation calls.

I. All LECs appearing in the opening information pages of a directory shall include or cause to be included contact information necessary to call the repair service and the appropriate business office.

20 VAC 5-427-130. Service quality performance standards.

A. Central office trouble reports is an indicator of switching system performance in processing calls. The standard for satisfactory performance for any given central office is, without exception other than as permitted in this chapter, less than or equal to 0.35 central office trouble reports per 100 NALs, per calendar month.

B. Outside plant trouble reports is an indicator of the quality of design, construction, and maintenance of a LEC's outside plant. The standard for satisfactory performance is, without exception other than as permitted in this chapter, less than or equal to 3.0 outside plant trouble reports per 100 NALs, per calendar month.

C. Repeat reports is a measure of customer-reported network troubles received by a LEC within 30 days of another network trouble report on the same NAL. The standard for satisfactory performance shall not exceed, without exception other than as permitted in this chapter, a repeat report rate of 16% in any given 30 day period.

D. Out-of-service trouble reports repaired within 24 and 48 hours is a measure of a LEC's ability to restore network service in a timely manner. Out-of-service trouble reports

should generally be cleared within 24 hours. The standard for satisfactory performance shall be that, without exception other than as permitted in this chapter, no less than 80% of out-of-service trouble reports are cleared within 24 hours, and that, without exception other than as permitted in this chapter, no less than 95% are cleared within 48 hours, per calendar month, excluding Sundays and LEC-recognized holidays.

E. In-service trouble reports cleared within 72 and 96 hours is a measure of a LEC's ability to repair network service in a timely manner. In-service trouble reports should generally be cleared within 72 hours. The standard for satisfactory performance shall be that, without exception other than as permitted in this chapter, no less than 90% of in-service trouble reports are cleared within 72 hours, and that, without exception other than as permitted in this chapter, no less than 95% are cleared within 96 hours, per calendar month, excluding Sundays and LEC-recognized holidays.

F. Business office access is a measure of a LEC's ability to provide sufficient customer access to its business office. The standard for satisfactory performance shall be that, without exception other than as permitted in this chapter, no less than 90% of business office calls are answered, per calendar month. A call is considered to have been answered when a live agent or an automated transaction system is ready to render assistance or accept the information necessary to process the call. In automated transaction systems, a customer shall be given the option to reach a live agent before the completion of the automated transaction.

G. Business office answer time is a measure of a LEC's ability to provide a sufficient workforce to render timely assistance to customers calling its business office. The standard for satisfactory performance for business office answer time shall be, without exception other than as permitted in this chapter, an average SAI of no greater than 60 seconds, during normal hours

of operation, per calendar month. A call is considered to have been answered when a live agent is ready to render assistance. In automated transaction systems, a customer shall be given the option to reach a live agent before the completion of the automated transaction. Information other than that necessary to direct customers to a live agent, for example, marketing or promotional material provided by an automated answering system, shall be included in the SAI.

H. Repair center access is a measure of a LEC's ability to provide sufficient customer access to its repair center. The standard for satisfactory performance shall be, without exception other than as permitted in this chapter, that no less than 90% of repair center calls are answered, per calendar month. A call is considered to have been answered when a live agent or an automated transaction system is ready to render assistance or accept the information necessary to process the call. In automated transaction systems, a customer shall be given the option to reach a live agent before the completion of the automated transaction.

I. Repair center answer time is a measure of a LEC's ability to provide a sufficient workforce to render timely assistance to customers calling its repair center. The standard for satisfactory performance for repair center answer time shall be, without exception other than as permitted in this chapter, an average SAI of no greater than 60 seconds, per calendar month. A call is considered to have been answered when a live agent is ready to render assistance. In automated transaction systems, a customer shall be given the option to reach a live agent before the completion of the automated transaction. Information other than that necessary to direct customers to a live agent, for example, marketing or promotional material provided by an automated answering system, shall be included in the SAI.

J. Operator access is a measure of a LEC's ability to provide sufficient customer access to operator services at all times. The standard for satisfactory performance shall be,

without exception other than as permitted in this chapter, that no less than 95% of operator calls are answered, per calendar month. A call is considered to have been answered when a live agent or automated transaction system is ready to render assistance or accept the information necessary to process the call. In automated transaction systems, a customer shall be given the option to reach a live agent before the completion of the automated transaction.

K. Operator answer time is a measure of a LEC's ability to provide a sufficient workforce to render timely assistance to customers placing directory assistance, collect, third-party billed, person-to-person, emergency, and other calls. The standard for satisfactory performance for operator answer time shall be, without exception other than as permitted in this chapter, an average SAI of no greater than 20 seconds, per calendar month. A call is considered to have been answered when a live agent is ready to render assistance. In automated transaction systems, assistance by a live agent shall be offered or provided. Information other than that necessary to determine the customer's request or direct customers to a live agent or other service, for example, marketing or promotional material provided by an automated answering system, shall be included in the SAI.

L. Service orders completed within five business days is a measure of a LEC's ability to complete installation and disconnection work requests in a timely manner. The standard for satisfactory performance shall be, without exception other than as permitted in this chapter, that no less than 90% of installations for one to two NALs for residential service and one to five NALs for business service, per premises, are completed within five business days, on a calendar month basis. Service orders include requests for new service, transfers to new locations, additions to existing service, and requests for disconnection.

M. Service orders completed within 30 calendar days is a measure of a LEC's ability to forecast and complete installation work requests in a manner sufficient to meet customer demand. The standard for satisfactory performance shall be, without exception other than as permitted in this chapter, that no less than 99% of installations for one to two NALs for residential service and one to five NALs for business service, per premises, are completed within 30 calendar days, on a calendar month basis. Installation orders include requests for new service or transfers to new locations.

N. Commitments met is a measure of a LEC's ability to meet customer installation and repair appointment times. The standard for satisfactory performance shall be, without exception other than as permitted in this chapter, that no less than 90% of commitments are met, per calendar month.

O. The rate of trunk blockage is a measure of the quality of a LEC's engineering, forecasting, and maintenance of its circuit-switched inter- and intra-exchange trunk paths. The standard for satisfactory performance for any given trunk group shall be, without exception other than as permitted in this chapter, less than or equal to 2.0 % call blockage, during the busy hour, per calendar month.

20 VAC 5-427-140. Retail transmission standards.

A. The copper twisted loop transmission standards are as follows:

1. Fully load all voice grade loops greater than 18,000 feet;
2. No load coils on loops 18,000 feet or less;
3. Loop length from central office to first load coil approximately 1/2 of one standard load section;

4. Loop length from last load coil to rate demarcation point approximately 1½ standard load sections;

5. No bridged taps between load coils;

6. Tip Ground, Ring Ground, or Tip Ring leakage equal to or greater than 100K ohms;

7. Longitudinal noise less than or equal to 80 dBrnC;

8. Metallic noise less than 20 dBrnC; and

9. 100% cable shield integrity between office frame ground and customer terminal.

B. In conducting a copper twisted pair transmission test, the following shall be considered major faults:

1. Missing coil or coils on loops exceeding 18,000 feet;

2. Customer located less than ½ load section distance from last coil;

3. Customer located more than 1½ load sections from last coil;

4. Deviation greater than 10% from standard load spacing;

5. Double loads;

6. Wrong type load coils;

7. Load coils varying more than 25% from threshold load coil;

8. Load coils on a loop 18,000 feet or less;

9. More than a 12% deviation on the standard spacing on the office end section;

10. Bridged taps between load coils;

11. Tip Ground, Ring Ground, or Tip Ring leakage less than 100K ohms;

12. Voltage greater than 15 volts AC;
13. Voltage greater than 10 volts DC;
14. Longitudinal noise greater than 90 dBrnC; and
15. Metallic noise greater than 20 dBrnC.

C. In conducting a copper twisted pair transmission test, the following shall be considered minor faults:

1. Longitudinal noise greater than 80 but less than or equal to 90 dBrnC; and
2. Failure to maintain shield continuity.

D. A rate exceeding 6.0% in the major fault category or a rate exceeding 16% in the minor fault category will constitute a failed test. A failed test shall require a corrective action plan when appropriate as determined by the staff, as set forth in 20 VAC 5-427-150.

20 VAC 5-427-150. Corrective Action.

A. A LEC subject to the provisions of this chapter shall, upon request of the commission or the staff, take timely and effective diagnostic or corrective action to address any area of demonstrable concern for service quality performance or to address commission complaints.

B. A LEC subject to the provisions of this chapter shall, upon request of the commission or the staff, submit a corrective action plan to address any area of demonstrable and continuing concern for service quality performance or to address recurring commission complaints. Such action plan shall be submitted to the staff within 30 days unless otherwise requested by the staff. An action plan shall at a minimum contain:

1. A complete identification of the cause of unsatisfactory performance or commission complaints;
2. An explicit remedy or corrective action and a schedule of implementation of the remedial or corrective action to be taken by a LEC; and
3. A date by which a LEC will complete the remedial or corrective action identified.

20 VAC 5-427-160. Enforcement and sanctions.

Failure by a LEC to meet any of the provisions of this chapter may result in enforcement and sanctions by the commission pursuant to its regulatory authority and applicable statutes notwithstanding the submission of a corrective action plan as provided in 20 VAC 5-427-150.

20 VAC 5-427-170. Waiver.

The commission may, at its discretion, waive or grant exceptions to any provision of this chapter.